



BarCoder

Advanced User Manual

Version 6.1

DocuPhase Corporation

1499 Gulf to Bay Boulevard, Clearwater, FL 33755

Tel: (727) 441-8228 – Fax: (727) 444-4419

Email: support@DocuPhase.com

Web: www.DocuPhase.com

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Introduction

Welcome to BarCoder

Before groups of documents are placed into a scanner, multi-function device with scanning capabilities or even a fax machine, overall efficiencies and improved accuracy can often be obtained by doing appropriate planning and document preparation:

- How will the pages belonging to each document be separated from others in the group?
- Separated at the time of scanning or must it be done later?
- How can each of the documents be indexed accurately and efficiently as each document is captured in DocuPhase?
- Can accurate barcoded data be used to provide automatic indexing or must other means be employed?
- Is it practical to do any document preparation prior to scanning?
- Note that internal staff can be trained to follow disciplined procedures (sometimes); However, public points of submission can rarely be controlled.
- Is it possible and practical to pre-encode information on turnaround documents you sent out for return?
- Pre-encoding allows each document scanned as a group of pages to be automatically recognized, separated and/or indexed by using accurate barcodes or OCR on high-quality imaged text; However, the quality of documents and resulting images are not always reliable or easy to control – Requiring alternative approaches to resolve problems.

As you plan and prepare your capture processes to address document separation, document identification and indexing as well as alternative approaches required to handle exceptions, the BarCoder utility product may prove to be a valuable tool during your document preparation and capture process.



BarCoder is able to:

- **Create Separator pages** to go between the documents in a group with printed Patch-codes (i.e., large horizontal bar codes) or barcodes (e.g., 3 of 9 or 128 barcodes) that can be automatically recognized and separate each of the documents in the group.
- **Provide Indexing Information in Barcode format** as well as text format on the separator sheet that can be reliably read and used to index each document in the group.
- **Both Patch-codes and Index Information Barcodes may appear** on the same document separator page it creates.

BarCoder reduces the time necessary for document preparation and it can reduce indexing effort. BarCoder is compatible with industry-standard barcode readers.

By combining easy to implement scanning procedures with user-defined patch-codes and barcodes, BarCoder increases the productivity of your pre-scanning process.

Purpose and Assumptions

This manual has been written for advanced user to prepare them to install, configure and use the *BarCoder* product.

End-Users of BarCoder, ScanDox and/or DocuPhase can use sections of this manual to understand how to create and print barcoded document cover sheets.

The following are assumptions made with regard to the advanced reading audience for this guide:

- The reader has received at least one day of DocuPhase provided training.
- The reader has used the DocuPhase software product for a period of no less than one month.

Foundational Terminology

The following key terminology that appears in this document are defined to aid the reader in case they are unfamiliar with these terms.

Data Extraction: Data Extraction allows for the collection and manipulation (extraction) of data by use of a computer. BarCoder generated document separator pages contain barcoded values along with corresponding text field names that can be used to provide index field data that describes each document.

OCR. Optical Character Recognition (OCR) is a technology that allows a computer to recognize text from digital images of paper and then translate that text into a data.

Barcodes. Barcodes are special machine print codes for storing information. This information is easily and accurately extracted by auto-indexing tools, such as ScanDox and Xtractor.

Patch-codes are a special type of barcode which have bars that are aligned horizontally which are used to identify document separator pages.

Subpage Processing. Xtractor can separate and process multiple documents with the use of a properly configured Document Separator such as generated by BarCoder.

Note: Subpage Processing provides the ability to split multipage documents into multiple separate documents.

Likewise, groups of documents with separator pages may initially be captured as if they are one document, but the BarCoder generated separator pages placed between the documents prior to scanning can be used to split the one group-document into multiple separate documents as well as provide barcoded index-field values to index each split-document appropriately.

Client Support Services Contact Information

DocuPhase is committed to providing quality service and support for our customers. If you are experiencing difficulty with your DocuPhase software, please let us hear from you so we can help.

Client Support Services are provided as part of your Maintenance Program. Enhanced support programs are available upon request. The standard support feature set includes:

- Product Updates and Upgrades
- Telephone and Email support during local business hours
- Remote Connect Support during local business hours

You may:

- Contact us by email at support@DocuPhase.com.
- Reach us by phone at (727) 441-8228.
- Reach us by fax at (727) 444-4419.
- Find us online at www.DocuPhase.com/support.

BarCoder Product Overview

BarCoder reduces the time necessary for document preparation. By combining easy to implement scanning procedures with user-defined barcodes, BarCoder increases the productivity of your pre-scanning process.

BarCoder fulfills the promise of streamlining your enterprise operations by reducing the resources needed to prepare documents prior to scanning. BarCoder is compatible with industry-standard barcode readers.

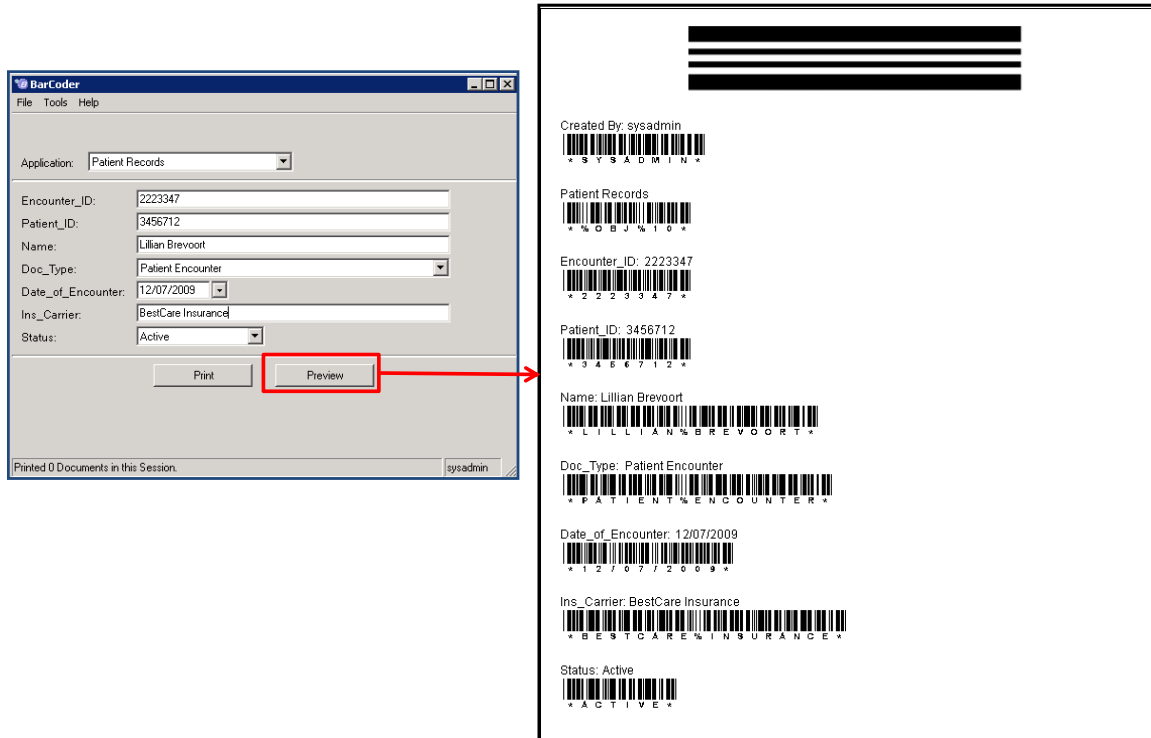
- BarCoder makes use of straightforward procedures to create user-defined barcodes thereby reducing the time necessary for document preparation in the scanning process.
- BarCoder allows simple creation of barcode separator sheets for automating the document indexing process.
- BarCoder also allows execution of database look-up to auto-populate index fields greatly reducing data entry and further ensuring accuracy.
- BarCoder is also ideal for customers who wish to scan using a Multi-Function Device (MFD) where the barcoded coversheet it generates remains with the document in a TIFF-formatted file that is processed, indexed and submitted to DocuPhase by Xtractor.
- BarCoder is completely integrated with DocuPhase and requires no programming or scripting to use.
- BarCoder is application aware and automatically selects the correct cover sheet for any selected virtual file cabinet chosen for scanning.
- By encoding document-specific information into a barcode, BarCoder increases the speed with which documents can be processed into the DocuPhase repository. BarCoder also allows users to place barcodes in a user defined space, select the *3 of 9 type* or *128 type* of barcode as well as the font and font size

BarCoder's features are easy to use with its icon-driven interface. This interface allows for rapid pre-scanning preparation of documents without the need for IT assistance or support. BarCoder delivers high performance by streamlining the document preparation process and increasing efficiency across the entire capture operation.

By reducing or eliminating the need for manual keying during the pre-scanning process, BarCoder increases the accuracy in document handling as they are prepared for scanning. Field Access accelerators increase both the overall speed in which documents are prepared and the accuracy of data as it delivered to the correct DocuPhase Application Cabinet.

BarCoder Purpose – Overview Example

Using BarCoder to select the DocuPhase Application cabinet where a batch of related documents of multiple pages of the same document, a separator cover sheet can be created by entering the appropriate Index Field values that each of the documents have in common, as shown below.



In this example, several one page documents resulted from this single medical-office encounter and are they are being input via to a scanner controlled by ScanDox along with a number of other patient-information records for today's office-visit encounters. Since each encounter has one or many pages, a separate BarCoder separator sheet will keep the pages for each encounter separate and reduce the amount of manual indexing effort by:

- Only having one set of indexing fields for each document in each 'Encounter Batch'.
- Only indexing one or a few of the indexing fields with the remaining index field automatically indexed by database lookups performed by BarCoder.
- Only indexing none or one index fields with automatic indexing performed by OCR/Barcode reads by Xtractor or iDox and possible additional database lookups performed by Data Exchange as services in the background.

The following illustration shows an 'Encounter Batch' with its separator Cover Sheet followed by three (3) one-page documents.

Key Features

The key features of BarCoder include:

- Excellent Quality Barcodes
- Reduced Document Preparation Time
- Easy to Use
- Intuitive Interface
- Add Barcodes Without IT Support
- No Programming Required
- Increase Accuracy
- Reduce Data Entry with Automatic Database Lookups
- Ensure Data Integrity
- Pull Data from Other Applications

BarCoder Saves Time

BarCoder reduces time necessary for document preparation. Making use of straightforward procedures to create user-defined barcodes, BarCoder increases the efficiency of the pre-scanning process.

- BarCoder can link with a pre-established template found in the DocuPhase repository and populate index fields with information.
- Populating index fields with information is accomplished without manual data entry, thereby increasing the productivity and accuracy of the data capture process.
- BarCoder is application-aware and automatically selects the correct cover sheet for any selected virtual filing cabinet chosen for scanning.
- By encoding document-specific information into a barcode, BarCoder increases the speed with which documents can be processed into the DocuPhase repository.
- BarCoder also allows users to place barcodes in a user-defined space, select the type of barcode, the font and font size, or use customized forms.

BarCoder Increases Accuracy

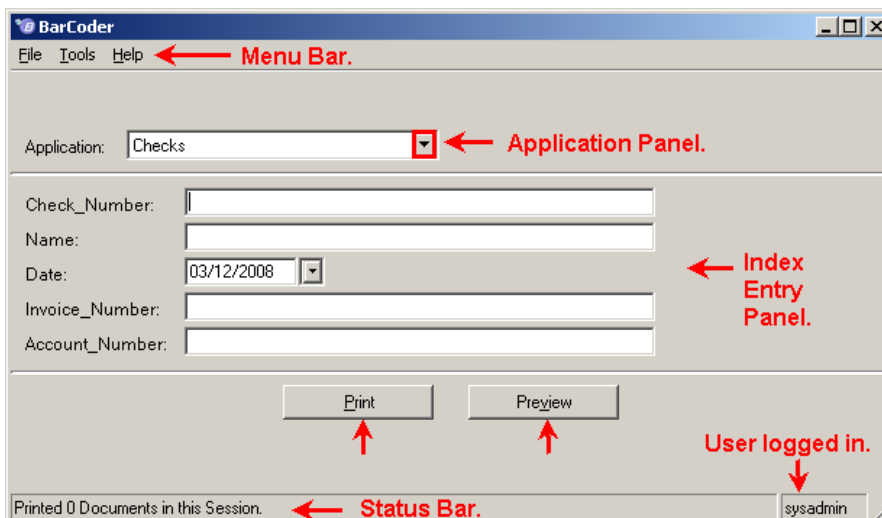
By reducing or eliminating the need for manual keying during the pre-scanning process, BarCoder increases the accuracy in the handling of documents as they are prepared for scanning.

- Field Access Accelerators increase both the overall speed in which documents are prepared, and
- Increases the accuracy of the data as it is delivered to the correct index field.

Working with BarCoder

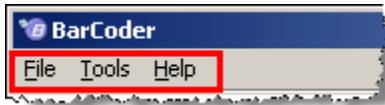
The User Interface for BarCoder consists of six areas:

1. Main Menu Bar.
2. Application Selection Panel.
3. Index Entry Panel.
4. Print Option.
5. Preview Option.
6. Status Bar.

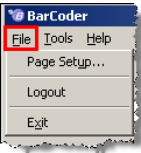

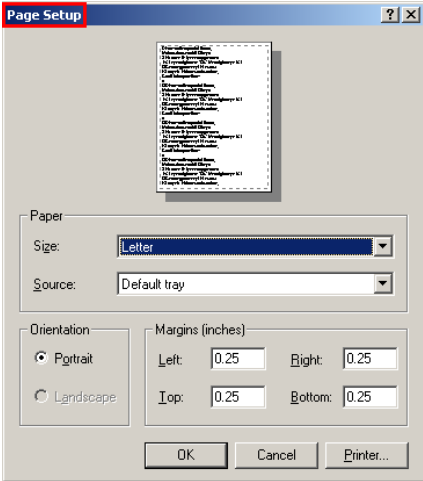
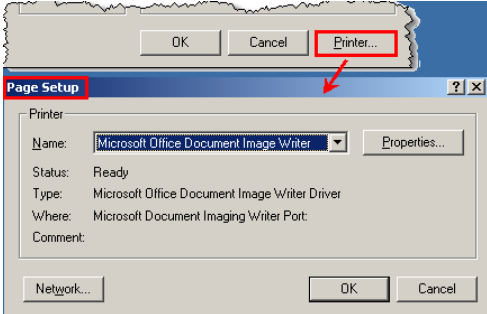


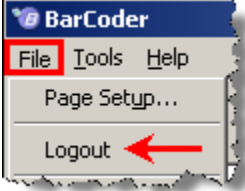
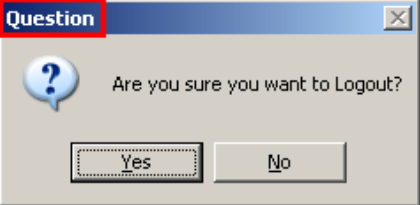
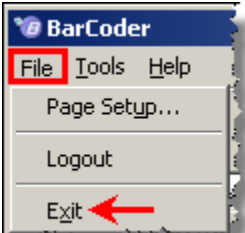
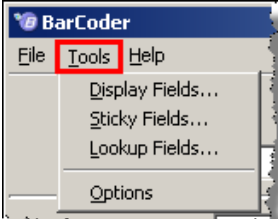
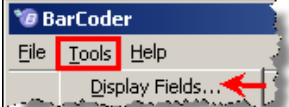
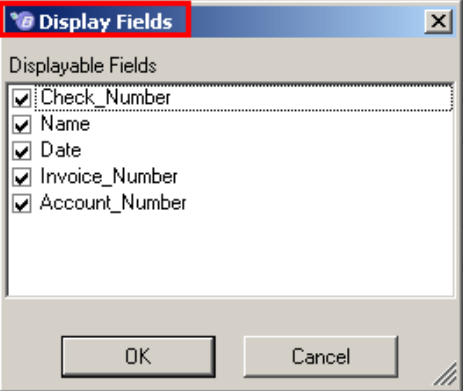
Main Menu

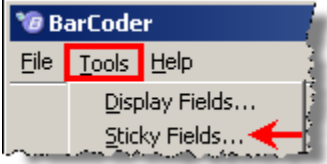
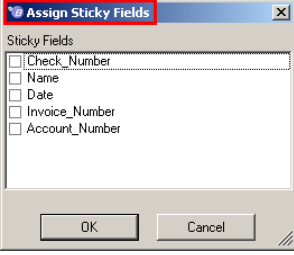
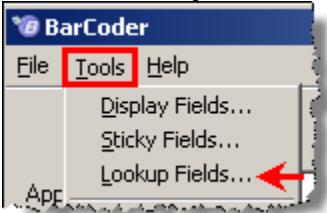
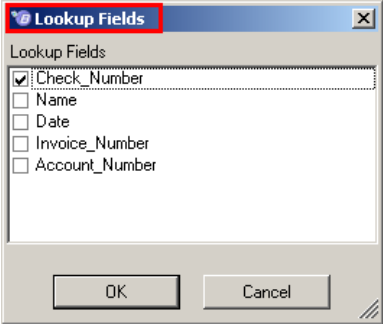
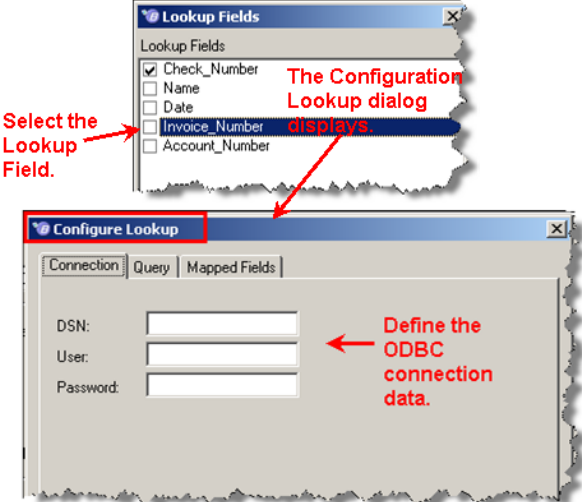
The main menu bar contains three drop-down menus: File, Tools, and Help.

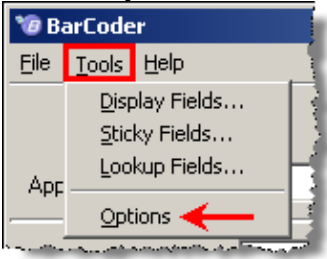
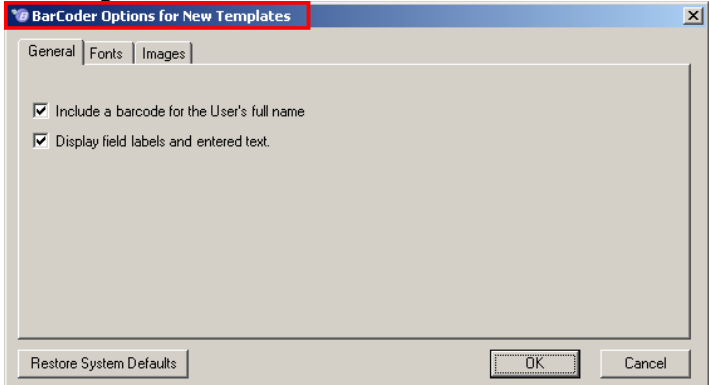
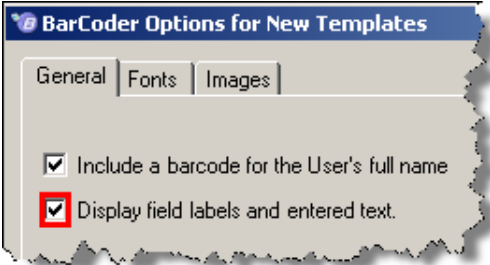
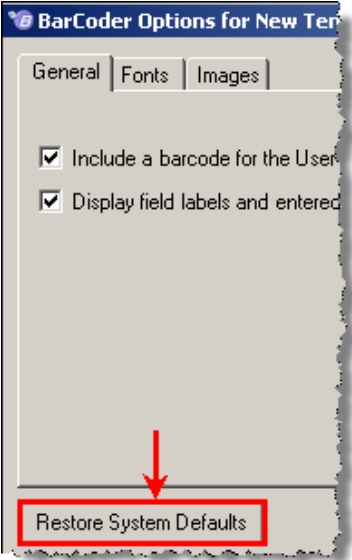



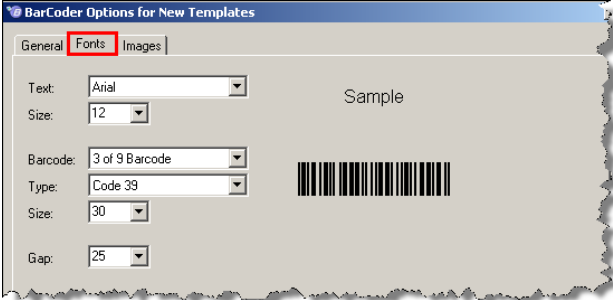
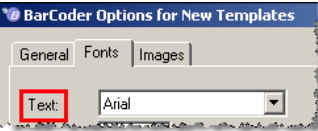
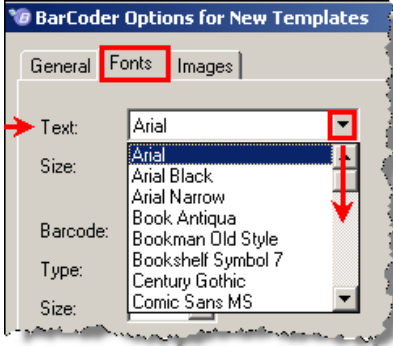
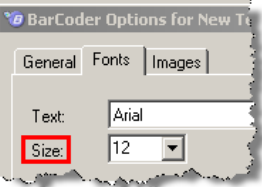
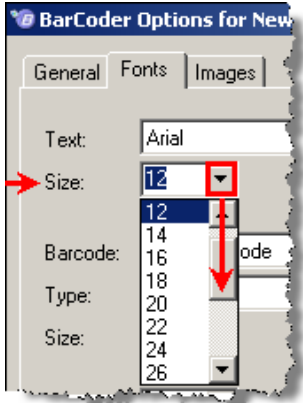
The following table describes the elements of the BarCoder Main Menu.

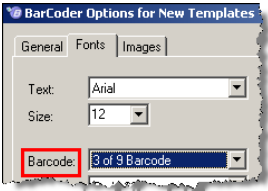
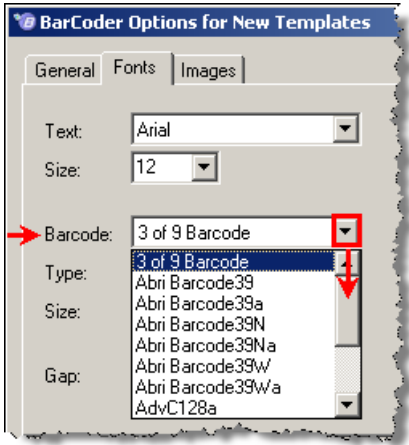
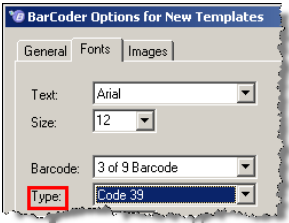
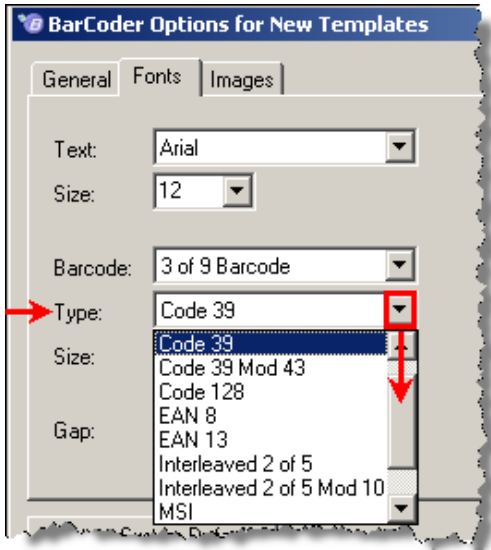
Element	BarCoder Main Menu Description
<p>File</p> 	<p>The File menu consists of three options:</p> <ul style="list-style-type: none"> Page Setup, Logout, and Exit.
<p>File>Page Setup</p> 	<p>The Page Setup Options displays the basic printer options such as paper size, source, orientation and margin options.</p>  <p><i>Note: Use the Page Setup option to make necessary adjustments.</i></p> <p><i>Additionally, to make printer property and settings changes, select Printer. When you are finished, select OK.</i></p> 

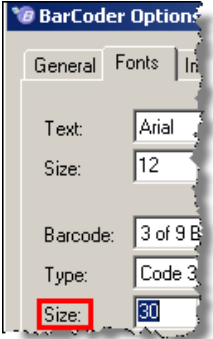
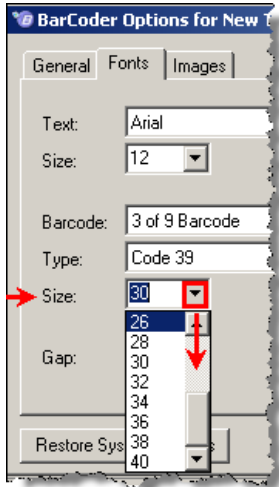
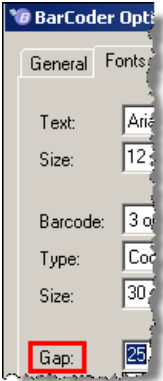
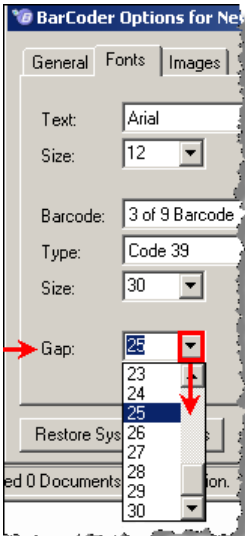
Element	BarCoder Main Menu Description
<p>File>Logout</p> 	<p>Provides the ability to log out the current user.</p> <p><i>Note: A Question dialog displays asking Are you Sure you to want to log out. Select Yes to log out, or No to cancel.</i></p> 
<p>File>Exit</p> 	<p>Provides the ability to exit BarCoder without logging out.</p> <p><i>Note: When using the exit option, the user will not have to reenter their user credentials in the log in dialog.</i></p>
<p>Tools</p> 	<p>The Tools Menu consists of four options:</p> <ul style="list-style-type: none"> ▪ Display Fields, ▪ Sticky Fields, ▪ Lookup Fields, and ▪ Options.
<p>Tools>Display Fields</p> 	<p>Provides the ability to choose which Index Fields will display on the Index Entry Panel.</p>  <p><i>Note: To make a selection, click the checkbox next to the field name and then select OK.</i></p>


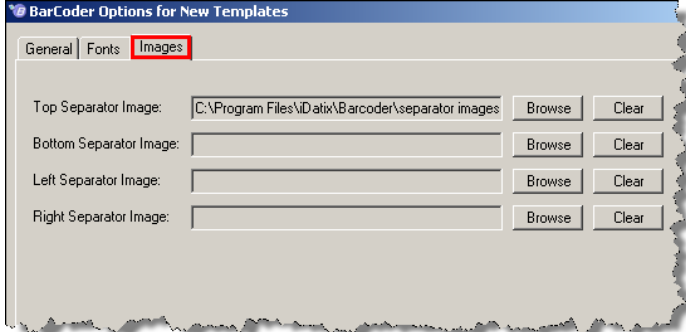

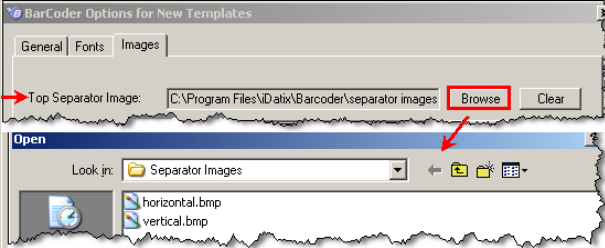

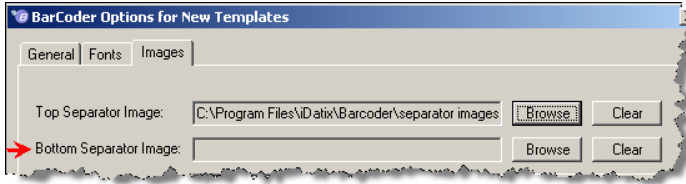

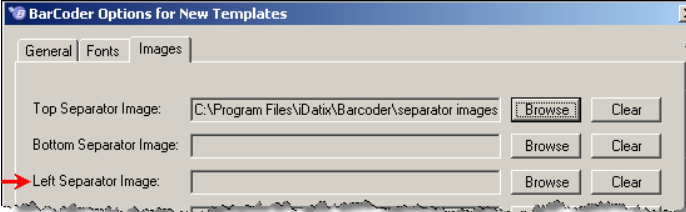
Element	BarCoder Main Menu Description
<p>Tools>Sticky Fields</p> 	<p>Provides the ability to retain the information in the selected Index Field after a BarCoder cover sheet has been printed.</p>  <p><i>Note: To make an Index Sticky, click the checkbox next to the Index Field and select OK.</i></p>
<p>Tools>Lookup Fields</p> 	<p>Provides the ability to specify an Index Field to serve as a key for remote entrance to another system, as well as enables you to use the value of one BarCoder Field to look up the values of other BarCoder fields.</p>  <p><i>Note: This remote system can be any ODBC compliant data source.</i></p> <p><i>Additionally, once you have selected the lookup field, the Configure Lookup dialog displays providing the ability to define the ODBC connection.</i></p> 

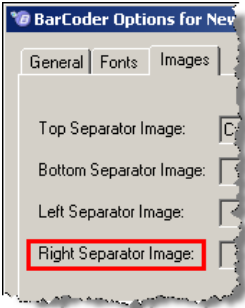
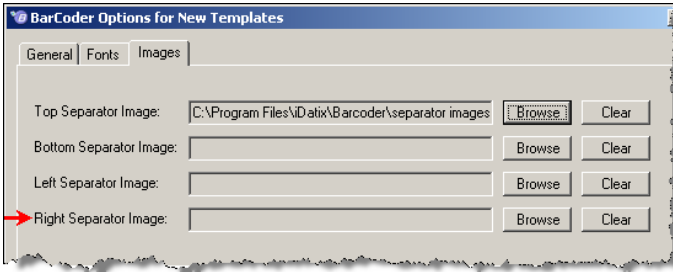
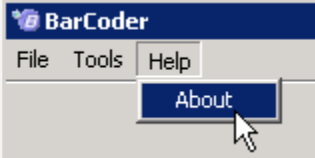


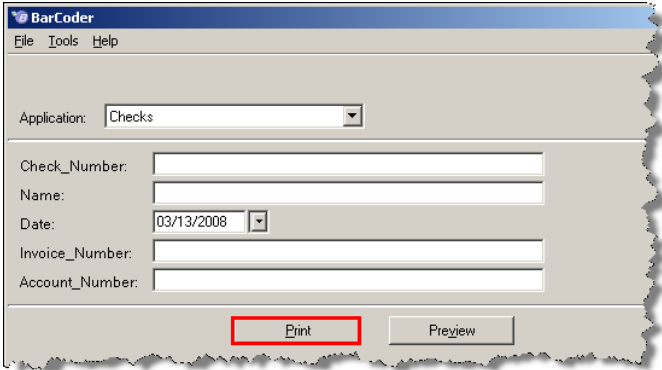
Element	BarCoder Main Menu Description
<p>Tools>Options</p> 	<p>Provides the user with the ability to work with BarCoder Templates. Select from the General, Fonts and Images tab.</p> 
<p>Display Field Labels and Entered Text</p>	<p>Provides the ability to configure BarCoder to print the field labels (DocuPhase Indexes) as well as the entered text.</p> 
<p>Restore System Defaults</p>	<p>Provides the ability to populate the dialog with preset system default values.</p> 


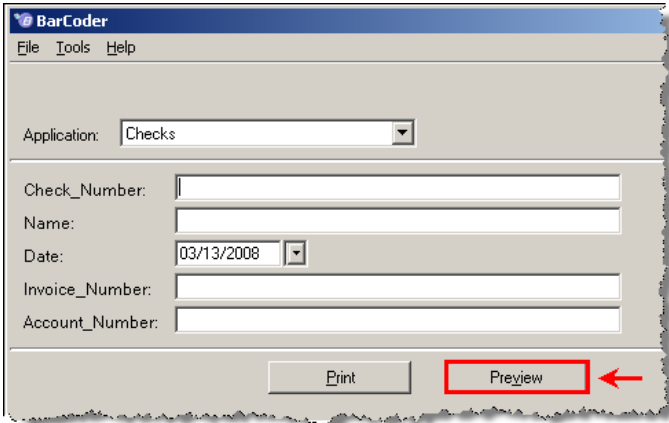
Element	BarCoder Main Menu Description
<p>Tools>Options>Fonts</p> 	<p>Provides the ability to change and adjust the font type and size printed on the barcode page, as well as the barcode type, size and spacing.</p> 
<p>Text</p> 	<p>Provides the ability to select various fonts from a drop down menu.</p> 
<p>Size</p> 	<p>Provides the ability to select various font sizes from a drop down menu.</p> 

Element	BarCoder Main Menu Description
<p>Barcode</p> 	<p>Provides the ability to select various barcode types from the drop down menu.</p>  <p><i>Note: The sample pane displays the selected barcode. Furthermore, the Barcode field and the Type field must be synchronized.</i></p> <p><i>For additional information review the following website:</i> http://www.mecsw.com/specs/speclist.html.</p>
<p>Type</p> 	<p>Provides the ability to select various barcode types from the drop down menu.</p>  <p><i>Note: The Barcode field and the Type field must be synchronized.</i></p> <p><i>For additional information, please review the following website:</i> http://www.mecsw.com/specs/speclist.html.</p>

Element	BarCoder Main Menu Description
<p>Size</p> 	<p>Provides the ability to choose various barcode display sizes from the drop down menu.</p>  <p><i>Note: The minimum requirements for barcodes are:</i></p> <ul style="list-style-type: none"> ▪ Type: Code 39, Code 39 Mode 43 and Code 128 ▪ Size: 30pt
<p>Gap</p> 	<p>Provides the ability choose various barcode spacing gaps from the drop down menu.</p> 

Element	BarCoder Main Menu Description
<p>Tools>Options>Images</p> 	<p>Provides the ability to change or adjust the placement of the patch code that appears on the printed barcode page.</p> 
<p>Top Separator Image</p> 	<p>Provides the ability to place the printed barcode of the top of the page.</p>  <p><i>Note: By default, the barcode is placed in the top portion of a printed page. To change the image, select Browse.</i></p>
<p>Bottom Separator Image</p> 	<p>Provides the ability to place the printed barcode at the bottom portion of the page.</p>  <p><i>Note: To change the image, select Browse.</i></p>
<p>Left Separator Image</p> 	<p>Provides the ability to place the printed barcode at the left portion of the page.</p>  <p><i>Note: To change the image, select Browse.</i></p>

Element	BarCoder Main Menu Description
<p>Right Separator Image</p> 	<p>Provides the ability to place the printed barcode at the right portion of the page.</p>  <p><i>Note: To change the image, select Browse.</i></p>
<p>Help</p> 	<p>Provides the BarCoder version number and DocuPhase contact information.</p> 
<p>Print</p> 	<p>Provides the ability to print the defined barcode sheet.</p> 

Element	BarCoder Main Menu Description
<p>Preview</p> 	<p>Provides the ability to preview the barcode sheet prior to printing.</p> 

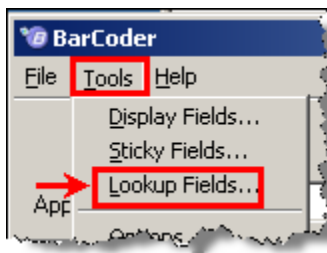
BarCoder Configuration

Configuring Lookup Fields

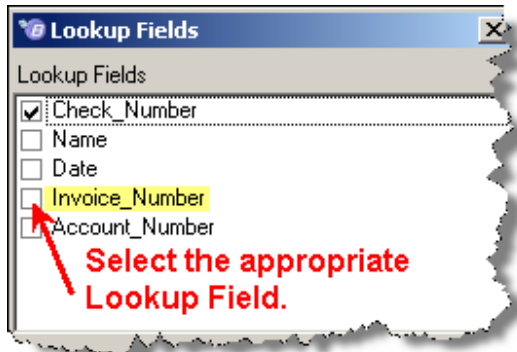
When you select an index field as a lookup field, the Configure Lookup dialog is displayed. From here, you will need to configure the ODBC connection, write the appropriate query and map the associated fields.

Note: Please contact your Database Administrator for further details.

1. Select **Tools>Lookup Fields**.

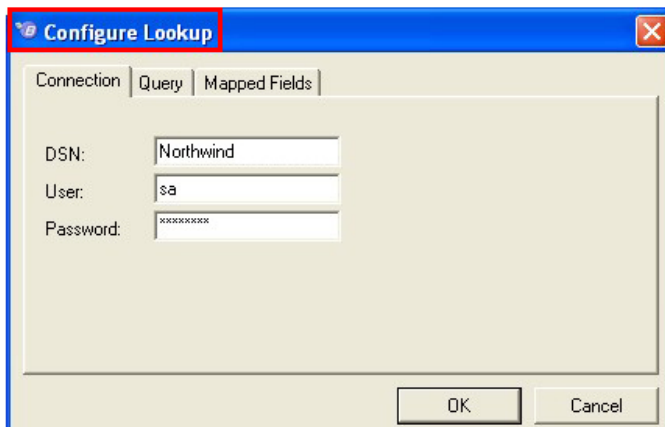


2. Select the appropriate **Lookup Field**.

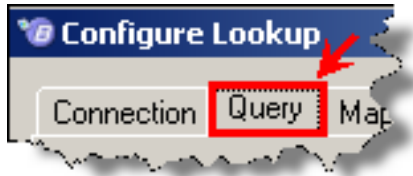


Note: The Configure Lookup Dialog displays.

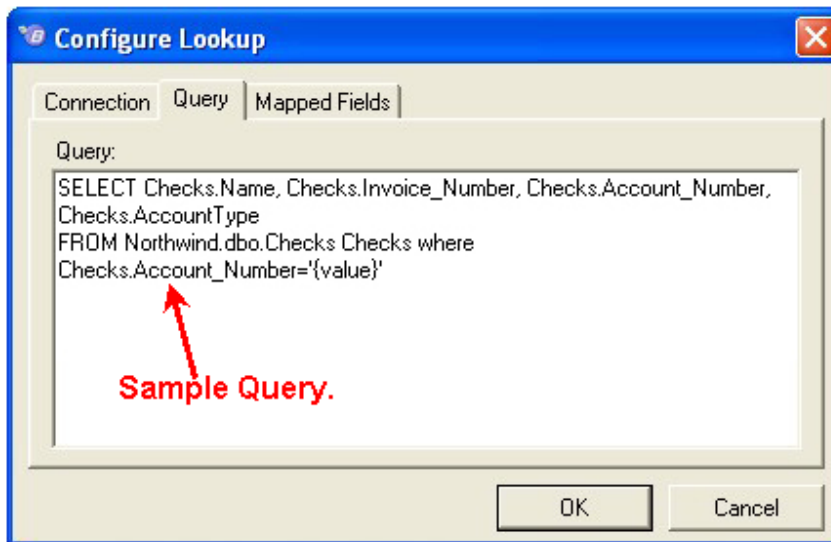
3. Define the **DSN, User** and the **Password**.



4. Select **Query**.



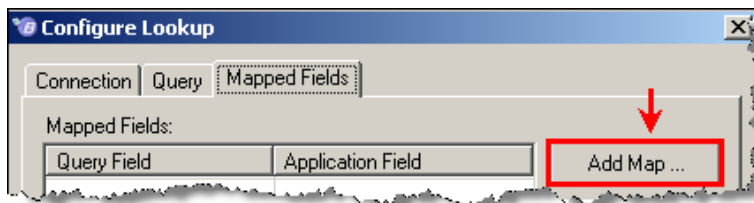
5. Define the **Query Criteria**.



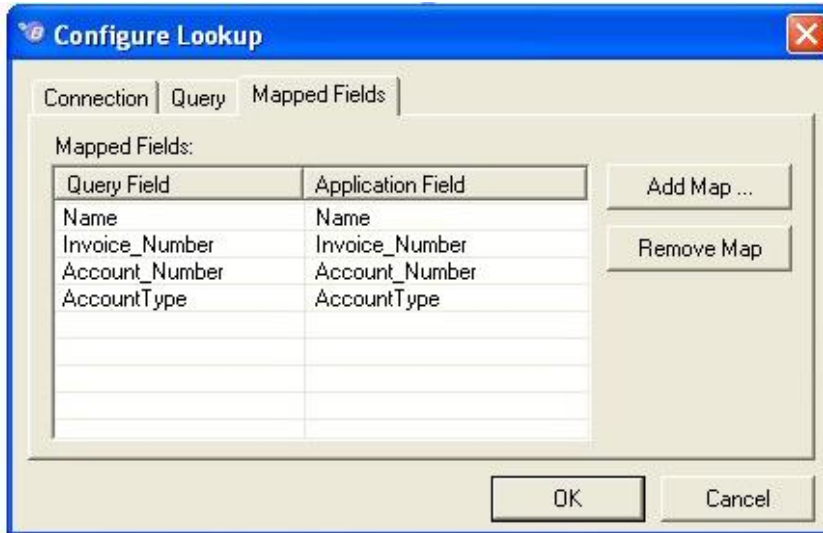
6. Select **Mapped Fields**.



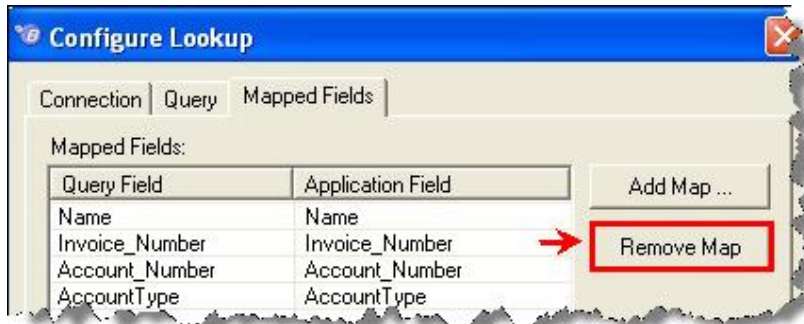
7. Select **Add Map**.



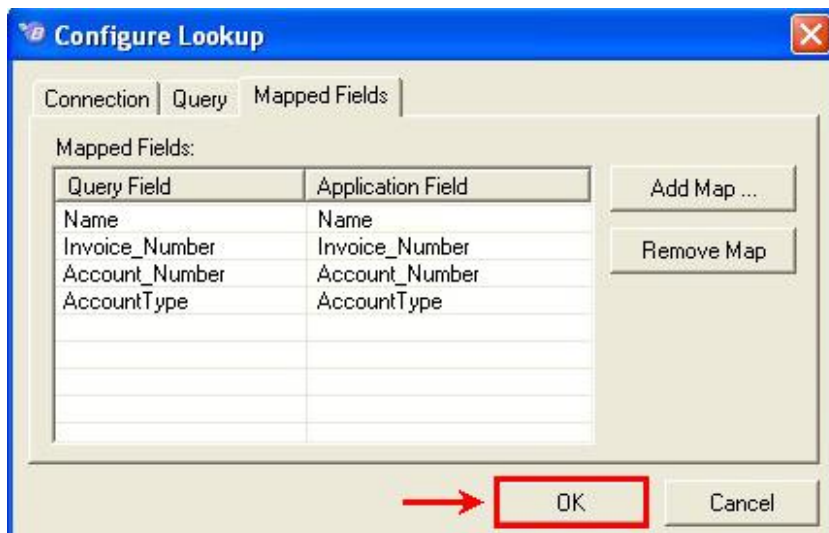
8. Select the desired Query Field entry and choose the appropriate **Application Field Entry**.



Note: To remove a mapped field, select Remove Map.



9. Select **OK**.




Creating a BarCoder Cover Page

1. Select the desired application from the **Application Selection Panel**.

Note: The associated index fields are displays in the Index Entry Panel.

2. Define the **Index Values** appropriately.

 **Note:** If a Lookup Field has been configured, type in the index value of the defined Lookup Field and the mapped index fields are automatically populated.

3. Select **Preview**.

Note: This will enable you to verify the content.

4. Select **Print**.

Appendix A: BarCoder Installation

Note: During the iDatix to DocuPhase branding transition in DocuPhase 6.0 many of the directory and internal components are still named the same and will retain their previous 'iDatix', 'iSynergy' and other module names. Temporarily, a mix of the old and new names will reflect this transition.

Prerequisites & Minimum Requirements

The following BarCoder installation consideration topics are documented in the following locations:


- **Minimum Requirements:** See *DocuPhase Prerequisites Guide*
- **Prerequisites:** See *DocuPhase Prerequisites Guide*
- **BarCoder Installation from .MSI:**
 - **BarCoder Application**
See: *DocuPhase Installation & Upgrade Guide*,
Topic: *Installing the Optional Components.*

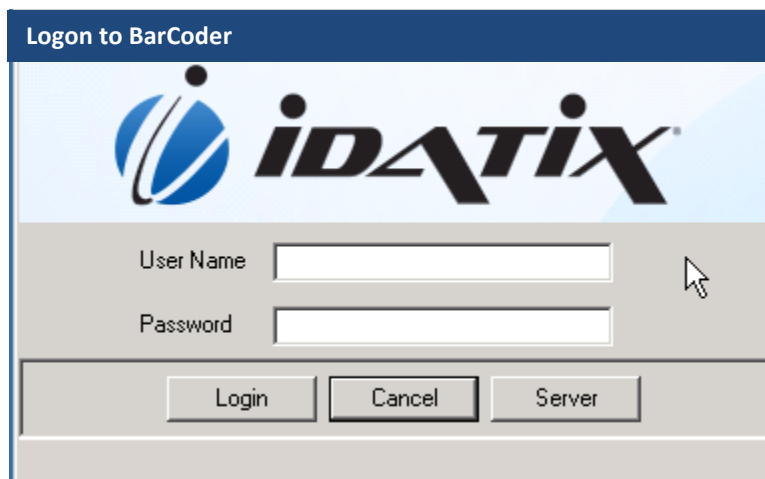
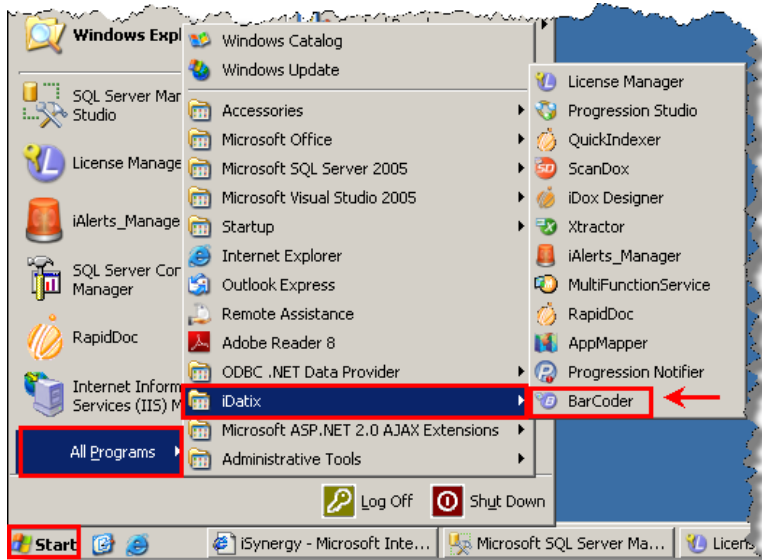
Logging in to BarCoder

Once BarCoder has been installed, you have the ability to log into the application. To log in, follow this procedure.

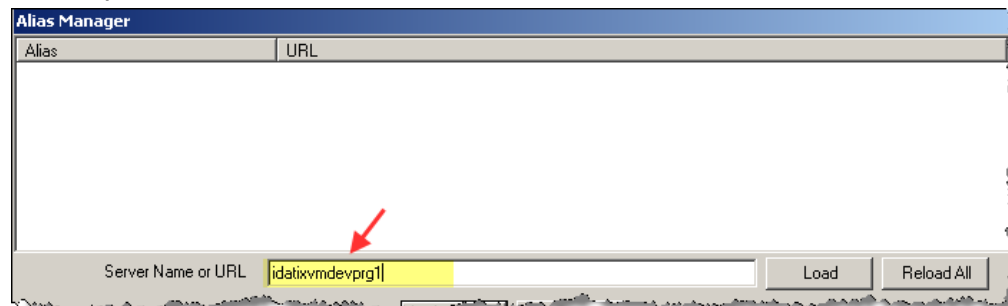
1. On your Desktop, navigate to the BarCoder shortcut icon.



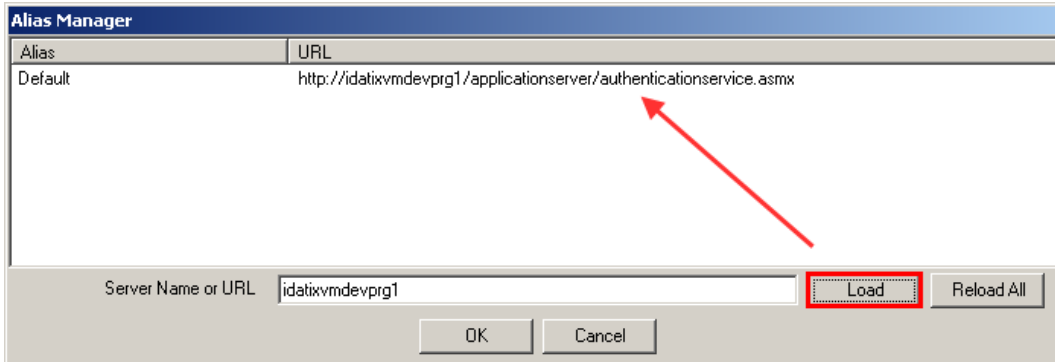
 **Note:** If you do not have the BarCoder shortcut icon, navigate to Start>All Programs>iDatix>BarCoder.



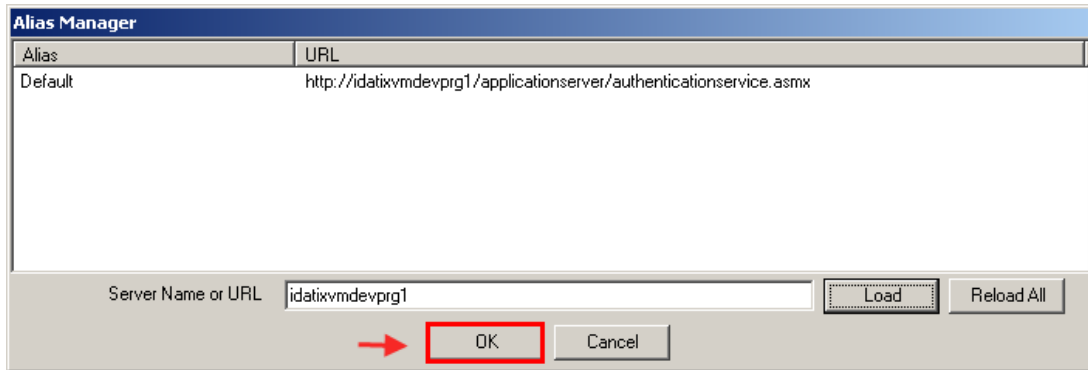
2. Tab to User Name text field and enter your **User Name**.
3. Tab to Password text field and enter your **Password**.
4. Click the **Server** button, then Select your Server from the list.
Note: The Alias Manager dialog displays.
5. Define your **Server** in the Server Name or URL field.



6. Select **Load**.



7. Select **OK**.



8. Click the **Login** button on the Login to BarCoder dialog.
Note: The BarCoder application launches.

Appendix B – Code 39 Specification

Barcode Style: *Code 39* (sometimes called "3 of 9", "3/9" and *USD-3*) is a discrete barcode. This means that a fixed pattern of bars represents a single character.

Each character is made up of 9 bars - 3 of which are wider than the others. (In this context a bar can be the printed black bar or the white space between the bars.) A single character therefore consists of 5 black bars and 4 white bars, as shown below.




The ratio of the bar widths can range from 2.2:1 to 3:1. To read a barcode reliably the decoder must be able to differentiate between the wide and narrow bars. In practice it is better to use barcodes close to the 3:1 ratio which allows nearly a 50% bar width error to occur before ambiguity occurs.

The space between each barcode character is called 'The inter-character gap'. Its width is undefined but is usually equivalent to a narrow white bar.

The widths of the wide and narrow sets of elements should all be the same but in practice most printing processes incur 'ink spread'. This widens the bars at the expense of the spaces. This effect is most noticeable on narrow elements sometimes making the barcodes very difficult to scan with some decoders.

The Code-39 barcode symbols support 43 characters plus an additional character used as a delimiter or start/stop character. The start/stop character always occurs as the first and last character in a complete barcode and is represented in human-readable text by the * character.

 **Comment:** The Code-39 character set includes the following 43 characters:
1234567890ABCDEFGHIJKLMNPOQRSTUVWXYZ - . \$ / + % SPACE

Appendix C – Bar Width Configuration Table

This table shows the bar configuration for each character in the Code 39 set. Note that the * character is used only for the start/stop character. It must be the first and last character appearing in the complete barcode. (Decoders do not usually transmit this character as part of the data string.)

Char.	Pattern	Bars	Spaces	Char.	Pattern	Bars	Spaces
1		10001	0100	M		11000	0001
2		01001	0100	N		00101	0001
3		11000	0100	O		10100	0001
4		00101	0100	P		01100	0001
5		10100	0100	Q		00011	0001
6		01100	0100	R		10010	0001
7		00011	0100	S		01010	0001
8		10010	0100	T		00110	0001
9		01010	0100	U		10001	1000
0		00110	0100	V		01001	1000
A		10001	0010	W		11000	1000
B		01001	0010	X		00101	1000
C		11000	0010	Y		10100	1000
D		00101	0010	Z		01100	1000
E		10100	0010	-		00011	1000
F		01100	0010	.		10010	1000
G		00011	0010	Space		01010	1000
H		10010	0010	*		00110	1000
I		01010	0010	\$		00000	1110
J		00110	0010	/		00000	1101
K		10001	0001	+		00000	1011
L		01001	0001	%		00000	0111